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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,011

02/01/2005

Michiyuki Sugino

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EXAMINER

WOOLCOCK, LENWORTH A

ART UNIT

PAPER NUMBER

2629

NOTIFICATION DATE

DELIVERY MODE

07/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/523,011	Applicant(s) SUGINO ET AL.	
	Examiner LENWORTH WOOLCOCK	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/01/2005, 04/13/2006, 05/17/2006, 10/04/2006,</u> | 6) <input type="checkbox"/> Other: _____ |
| <u>05/30/2007, 01/28/2008</u> | |

DETAILED ACTION

Drawings

Figures 1-6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-8, 11-15 and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Baba et al (US 2002/0003522).

Consider claims 1 and 18, Baba discloses a liquid crystal display device wherein the image signal to be displayed is written into a liquid crystal display panel while a backlight is activated intermittently within one frame period, comprising: a section for detecting the type of the image content to be displayed (**see par. [0023], maximum**

brightness level indicates the type of image content); and a section for variably controlling the illumination duration of the backlight based on the detected type of the image content **(see par. [0096], the duration of the lightening period is based on the maximum brightness level)**.

Consider claim 11, Baba discloses a liquid crystal display device wherein the image signal to be displayed and the black display signal are written into a liquid crystal display panel within one frame period, comprising: a section for detecting the type of the image content to be displayed **(see par. [0023], maximum brightness level indicates the type of image content)**; and a section for variably controlling the duration in which the black display signal is supplied to the liquid crystal display panel based on the detected type of the image content **(see par. [0096], the duration of the non-lightening period is based on the maximum brightness level)**.

Consider claims 4, and 12, Baba discloses the luminous intensity of the backlight is varied in accordance with the illumination duration of the backlight **(see par. [0103])**.

Consider claims 5, 13 and 19, Baba discloses the gray scale levels of the input image signal are varied in accordance with the illumination duration of the backlight **(see par. [0104])**.

Consider claims 6, 14, and 20, Baba inherently discloses the gray scale voltages applied to the liquid crystal display panel in response to the input image signal are varied in accordance with the illumination duration of the backlight **(see par. [0104]-[0108], the gray scale level is adjusted)**.

Consider claim 7, Baba discloses the frame frequency of the input image signal is varied based on the type of the image content (**see par. [0097]**).

Consider claims 8, 15, and 21, Baba discloses the type of the image content to be displayed is detected based on the contents information included in the broadcast data (**see par. [0023], image signal**).

Claim Rejections - 35 USC § 103

Claims 24, 27-30, 33-36, 39, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba et al (US 2002/0003522) in view of Yong et al (US 2004/0012556).

Consider claims 24 and 39, Baba discloses a liquid crystal display device wherein the image signal to be displayed is written into a liquid crystal display panel while a backlight is activated intermittently within one frame period (**see abstract**), comprising: a section for detecting an input (**see par. [0023], maximum brightness level indicates the type of image content**); and a section for variably controlling the illumination duration of the backlight based on the detected input (**see par. [0023], the duration of the non-lightening period is based on the maximum brightness level**). Baba does not specifically disclose a section for detecting a user's instructional input; and a section for variably controlling the illumination duration of the backlight based on the detected user's instructional input. Yong discloses a section for detecting a user's instructional input (**see par. [0018]**); and a section for variably controlling the

illumination duration of the backlight based on the detected user's instructional input
(see par. [0022], duty cycle of the backlight which is controlled by the user input).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the input be user instructional input, as taught by Yong, thus enabling the user to adjust the display brightness, as discussed by Yong **(see par. [0018]).**

Consider claim 33, Baba discloses a liquid crystal display device wherein the image signal to be displayed and the black display signal are written into a liquid crystal display panel within one frame period, comprising: a section for detecting an input **(see par. [0023], maximum brightness level indicates the type of image content);** and a section for variably controlling the duration in which the black display signal is supplied to the liquid crystal display panel based on the input **(see par. [0096], the duration of the non-lightening period is based on the maximum brightness level).** Baba does not specifically disclose a section for detecting a user's instructional input; and a section for variably controlling the duration in which the black display signal is supplied to the liquid crystal display panel based on the user's instructional input. Yong discloses a section for detecting a user's instructional input **(see par. [0018]);** and a section for variably controlling the duration in which the black display signal is supplied to the liquid crystal display panel based on the user's instructional input **(see par. [0022], duty cycle of the backlight which is controlled by the user input).**

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the input be user instructional input, as

taught by Yong, thus enabling the user to adjust the display brightness, as discussed by Yong (**see par. [0018]**).

Consider claims 27 and 34, Baba discloses the luminous intensity of the backlight is varied in accordance with the illumination duration of the backlight (**see par. [0103]**).

Consider claims 28, 35 and 40, Baba discloses the gray scale levels of the input image signal are varied in accordance with the illumination duration of the backlight (**see par. [0104]**).

Consider claims 29, 36 and 41, Baba inherently discloses the gray scale voltages applied to the liquid crystal display panel in response to the input image signal are varied in accordance with the illumination duration of the backlight (**see par. [0104]-[0108], the gray scale level is adjusted**).

Consider claim 30, Baba discloses the frame frequency of the input image signal is varied based on the type of the image content (**see par. [0097]**).

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba et al (US 2002/0003522) in view of Applicant's Admitted Prior Art (APA).

Consider claim 2, Baba discloses the liquid crystal device according to claim 1. Baba does not specifically disclose the backlight emits a flash of light over the full screen every one frame period in synchronization with the vertical synchronizing signal supplied to the liquid crystal display panel. APA discloses the backlight emits a flash of

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light over the full screen every one frame period in synchronization with the vertical synchronizing signal supplied to the liquid crystal display panel **(see fig. 4)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the backlight emits a flash of light over the full screen every one frame period in synchronization with the vertical synchronizing signal supplied to the liquid crystal display panel, as taught by APA, thus suppressing image quality degradation and blur injury, as discussed by APA **(see page 5 line 4-14)**.

Consider claim 3, Baba discloses the liquid crystal device according to claim 1. Baba does not specifically disclose the backlight is operated so that multiple luminous sections are activated, one to the next, scan-wise in synchronization with the vertical and horizontal synchronizing signals supplied to the liquid crystal display panel. APA discloses the backlight is operated so that multiple luminous sections are activated, one to the next, scan-wise in synchronization with the vertical and horizontal synchronizing signals supplied to the liquid crystal display panel **(see fig. 4 and page 5 line 15 – page 6 line 12)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the backlight is operated so that multiple luminous sections are activated, one to the next, scan-wise in synchronization with the vertical and horizontal synchronizing signals supplied to the liquid crystal display panel, as taught by APA, thus suppressing image quality degradation and blur injury, as discussed by APA **(see page 5 line 4-14)**.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba et al (US 2002/0003522) in view of Yong et al (US 2004/0012556) in further view of Applicant's Admitted Prior Art (APA).

Consider claim 25, Baba discloses the liquid crystal device according to claim 24. Baba does not specifically disclose the backlight emits a flash of light over the full screen every one frame period in synchronization with the vertical synchronizing signal supplied to the liquid crystal display panel. APA discloses the backlight emits a flash of light over the full screen every one frame period in synchronization with the vertical synchronizing signal supplied to the liquid crystal display panel **(see fig. 4)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the backlight emits a flash of light over the full screen every one frame period in synchronization with the vertical synchronizing signal supplied to the liquid crystal display panel, as taught by APA, thus suppressing image quality degradation and blur injury, as discussed by APA **(see page 5 line 4-14)**.

Consider claim 26, Baba discloses the liquid crystal device according to claim 24. Baba does not specifically disclose the backlight is operated so that multiple luminous sections are activated, one to the next, scan-wise in synchronization with the vertical and horizontal synchronizing signals supplied to the liquid crystal display panel. APA discloses the backlight is operated so that multiple luminous sections are activated, one to the next, scan-wise in synchronization with the vertical and horizontal synchronizing signals supplied to the liquid crystal display panel **(see fig. 4 and page 5 line 15 – page 6 line 12)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the backlight is operated so that multiple luminous sections are activated, one to the next, scan-wise in synchronization with the vertical and horizontal synchronizing signals supplied to the liquid crystal display panel, as taught by APA, thus suppressing image quality degradation and blur injury, as discussed by APA **(see page 5 line 4-14)**.

Claims 9, 10 16, 17, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba et al (US 2002/0003522) in view of Kitsutaka et al (US 2003/0011610).

Consider claims 9, 16, and 22, Baba discloses the limitations of claim 1, 11, and 18. Baba does not specifically disclose wherein the type of the image content to be displayed is detected based on the contents information obtained from external media. Kitsutaka discloses the type of the image content to be displayed is detected based on the contents information obtained from external media **(see par. [0286]-[0287], the gaming system sends image data to the display)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the type of the image content to be displayed is detected based on the contents information obtained from external media, as taught by Kitsutaka, thus providing a source for image content.

Consider claims 10, 17, and 23, Baba discloses the limitations of claims 1, 11, and 18. Baba does not specifically disclose wherein the type of the image content to be

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displayed is detected based on the video source select command information input by the user. Kitsutaka discloses the type of the image content to be displayed is detected based on the video source select command information input by the user **(see par. [0280] and [0287], the brightness setting is determined by which video source is selected)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have wherein the type of the image content to be displayed is detected based on the video source select command information input by the user, as taught by Kitsutaka, thus providing a convenient method of adjusting setting related solely to on input, as discussed by Kitsutaka **(see par. [0287])**.

Claims 31, 32, 37, 38, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba et al (US 2002/0003522) in view of Yong et al (US 2004/0012556) in further view of Kitsutaka et al (US 2003/0011610).

Consider claims 31, 37, and 42, Baba and Yong discloses the limitations of claims 24, 33 and 39. Baba does not specifically disclose wherein the type of the image content to be displayed is detected based on the video source select command information input by the user. Kitsutaka discloses the type of the image content to be displayed is detected based on the video source select command information input by the user **(see par. [0280] and [0287], the brightness setting is determined by which video source is selected)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have wherein the type of the image content to be displayed is detected based on the video source select command information input by the user, as taught by Kitsutaka, thus providing a convenient method of adjusting setting related solely to on input, as discussed by Kitsutaka (**see par. [0287]**).

Consider claims 32, 38 and 43, Baba and Yong discloses the limitations of claims 24, 33, and 39, wherein the illumination duration of the backlight is varied based on the image input signal (**see above**). Baba does not specifically disclose the image input signal being video adjustment command information input by the user. Kitsutaka discloses the image input signal being video adjustment command information input by the user (**see par. [0287]**).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Baba, and have the image input signal being video adjustment command information input by the user, as taught by Kitsutaka, thus providing a convenient method of adjusting setting related solely to on input, as discussed by Kitsutaka (**see par. [0287]**).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENWORTH WOOLCOCK whose telephone number is (571)270-5152. The examiner can normally be reached on M-F 8:30am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lenworth Woolcock/
Examiner, Art Unit 2629

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629